Sanitized Copy Approved for Release 2011/10/19 : CIA-RDP80-00809A000600390525-6

CLASSIFICATION S-E-C-R-E-T

REPORT

1950

CENTRAL INTELLIGENCE AGENCY

INFORMATION FROM FOREIGN DOCUMENTS OR RADIO BROADCASTS

CD NO.

50X1-HUM

COUNTRY

USSR

DATE OF INFORMATION

SUBJECT

Scientific - Medicine, new chemotherapeutic

DATE DIST. 5 Jun 1951

HOW

PUBLISHED

Monthly periodical

WHERE **PUBLISHED**

MOSCOW

NO, OF PAGES 2

DATE **PUBLISHED**

Apr 1950

SUPPLEMENT TO REPORT NO.

LANGUAGE

Russian

THIS IS UNEVALUATED INFORMATION

SOURCE

Sovetskaya Meditsina, Vol XIV, No 4, pp 1-4.

ACTION OF SILVER SALT OF SULFATHIAZOLE IN DYSENTERY

Prof A. F. Bilibin

Considerable advances have been made within recent years in the diagnosis and treatment of dysentery. By using improved methods of diagnosis including bacteriological investigation with the aid of the special "Zh" medium (a medium to which bile acids bad been added), it was possible to establish that the socalled "hemocolitis" and "acute colitis" are actually forms of dysentery. We have effective methods for the therapy of acute dysentery, but difficulties arise when the infection assumes a chronic form. The development of auxiliary flora (the secondary infection) delays or nullifies the bacteriostatic action of sulfa drugs in chronic cases. The longer the inflammatory process has continued, the more specific and nonspecific bacteria are present at the site of the infection, and the greater the quantity of substances which counteract sulfa drugs.

Dysentery, particularly its chronic form, is a type of disease in which the primary causative factor is not the only microorganism that must be considered. Emetine frequently has no effect in intestinal amoebiasis unless antibacterial therapeutic agents have been applied beforehand. Similarly, agents which act on the nonspecific flora must be applied in bacillary dysentery.

From this viewpoint, a new chemotherapeutic agent, a colloidal dispersion of the silver salt of sulfathiazole /sulfathiazole in which the remaining hydrogen of the amido group is replaced by a silver atom/ that was synthesized by Senior Scientific Associate K. A. Libman at the All-Union Scientific Research Laboratory of Dispersed Therapeutic Agents, proved to be particularly useful. Prior to our application of this agent in dysentery, it was successfully used in surgery, otolaryngology, urology, and for the treatment of wounds and ulcers. In the chemotherapeutic agent in question, the high solubility which is necessary for a good effect is replaced by a colloidally disperse state.

SFCRET

| | CL | ASSIFICATIO | N_ | 9-F-C-W-H-T | | | |
|------------|----|-------------|----|--|--------|--|--------|
| STATE KAYY | | NSRB | | DISTRIBUTION | | | |
| ARMY X AIR | | X FBI | | | | | |
| V | | | | the annual contract of the con | * 1 mm | the contract of the contract o | 4.75 A |

| Sanitiz | ed Copy Approv | ed for Release | e 2011/10/19 | : CIA-RDP8 | 30-00809A00 | 0600390525 | 5-6 |
|---------|----------------|----------------|--------------|------------|-------------|------------|-----|

| SE | | |
|----|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

S-E-C-R-E-T

50X1-HUM

The combination in the same agent of two active principles, that of the sulfa drug which acts on the causative factor of dysentery and that of the silver which is capable of acting on a number of bacteria which induce or are capable of inducing a secondary infection, is a particularly valuable property. If the causative factor has had sufficient time to acquire resistance to sulfadrugs, it is expowed to the action of silver. The lethal effect of silver on the secondary intestinal flora has been known for a long time. One must remember that silver in this compound is present in its most active form, that of ions. These ions have a charge which is opposed to that of the bacteria. Under the currumstances, a very high degree of absorption results when the substance is in a highly dispersed state, so that a considerable amount of contact with the causative factor must result at the site of infection.

Furtherwise. Sliver ions exert a catalytic effect in that they raise the level of metabolism in tissue cells, particularly as far as oxygen metabolism is concerned, thus increasing the nutrition of the cells. This effect of the substance distinctly counteracts the histiostatic action of sulfa drugs (administration of nilotinic acid alternately with that of the sulfa drug and other measures which have been used formerly to combat the histiostatic effect, i.e., loss of tissue reactivity resulting from the effect of sulfa drugs). In addition, silver preparations have an irritating effect on the pathologicoanatomic process, so that granulation of the surface of the wound and of the epithelium is stimulated. Finally, one may assume that silver ions act on the vegetative nervous system, which undoubtedly participates to a prominent extent in the pathologic process.

Clinical tests on the treatment of cases of both acute and chronic dysentery, in the course of which the diluted colloidal dispersion of sulfathiazole silver salt was administered in the form of enemas, demonstrated that application of this therapeutic agent is capable of successfully replacing powerful therapeutic methods (such as treatment with ordinary sulfa drugs, administration of serum, vaccine therapy, blood transfusion, bacteriophage therapy) which proved to be wholly or partly ineffective in the cases under treatment.

- E N D -

- 2 -

S-E-C-R-E-T

SECRET